

IN THE CLAIMS:

Cancel claims 5 and 17 without prejudice or disclaimer.

Please amend the claims and add new claims 26-29 as shown below:

Claim 1 (currently amended): An antenna duplexer, comprising:

an antenna terminal;

a reception filter connected to said antenna terminal;

a transmission filter connected to said antenna terminal; and

a first phase circuit provided between said antenna terminal and said reception filter and/or a second phase circuit provided between said antenna terminal and said transmission filter,

wherein said reception filter is a surface acoustic wave filter, comprising:

at least one piezoelectric substrate;

at least one surface acoustic wave resonator formed on said piezoelectric substrate; and

a longitudinal coupled mode type surface acoustic wave filter formed on said piezoelectric substrate,

wherein said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter are cascaded together,

wherein said surface acoustic wave resonator is also connected to at least one inductor having one end grounded, and

wherein an attenuation band of said at least one surface acoustic wave resonator is apart from a pass band of said longitudinal coupled mode type surface acoustic wave filter in the direction of higher frequencies.

Claim 2 (currently amended): A surface acoustic wave filter, comprising:

- at least one piezoelectric substrate;
- at least one surface acoustic wave resonator formed on said piezoelectric substrate; and
- a longitudinal coupled mode type surface acoustic wave filter formed on said piezoelectric substrate,

wherein different electrode materials are used for said at least one surface acoustic wave resonator and for said longitudinal coupled mode type surface acoustic wave filter, respectively,

wherein said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter are cascaded together, and

wherein said surface acoustic wave resonator is also connected to at least one inductor having one end grounded.

Claim 3 (original): The surface acoustic wave filter according to claim 2, wherein the electrode material of said at least one surface acoustic wave resonator has a stronger power durability than the electrode material of said longitudinal coupled mode type surface acoustic wave filter.

Claim 4 (original): The surface acoustic wave filter according to claim 3, wherein said at least one surface acoustic wave resonator has a laminated electrode configuration.

Claim 5 (canceled)

Claim 6 (currently amended): The surface acoustic wave filter according to claim ~~5~~ 2, wherein the attenuation band of said at least one surface acoustic wave resonator is set to be higher than the pass band of said longitudinal coupled mode type surface acoustic wave filter.

7. (currently amended) The surface acoustic wave filter according to claim ~~5~~ 2, wherein the other end of said inductor is connected to a side of said surface acoustic wave resonator which is opposite said longitudinal coupled mode type surface acoustic wave filter.

Claim 8 (original): The surface acoustic wave filter according to claim 7, wherein a plurality of said surface acoustic wave resonators are cascaded together, and

wherein the side of said surface acoustic wave resonator which is opposite the longitudinal coupled mode type surface acoustic wave filter includes connection portions between said plurality of cascaded surface acoustic wave resonators.

Claim 9 (currently amended): The surface acoustic wave filter according to claim ~~1 or 5~~ 2, wherein the other end of said inductor is connected to a connection portion between said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter.

Claim 10 (original): The surface acoustic wave filter according to claim 8, wherein a plurality of said inductors are provided, and each inductor is connected to said surface acoustic wave resonator through respective different connection portions.

Claim 11 (currently amended): The surface acoustic wave filter according to claim 2 ~~1 or 5~~, wherein said inductor moves a phase of an impedance at a frequency of said attenuation band closer to its open state.

Claim 12 (original): The surface acoustic wave filter according to claim 11, wherein said inductor matches impedances at a frequency of said pass band to each other.

Claim 13 (currently amended): The surface acoustic wave filter according to claim ~~1 or 2~~, wherein different electrode film thicknesses are used for said at least one surface acoustic wave resonator and for said longitudinal coupled mode type surface acoustic wave filter.

Claim 14 (currently amended): The surface acoustic wave filter according to claim ~~1 or 2~~,

wherein a plurality of piezoelectric substrates are provided as said at least one piezoelectric substrate, and

wherein the piezoelectric substrate on which said at least one surface acoustic wave resonator is formed is different from the piezoelectric substrate on which said longitudinal coupled mode type surface acoustic wave filter is formed.

Claim 15 (original): The surface acoustic wave filter according to claim 14, wherein at least one of said at least one surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter is mounted in a face down manner.

Claim 16 (original): The surface acoustic wave filter according to claim 15, wherein the other of said at least one surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter is mounted using wires.

Claim 17 (canceled)

Claim 18 (currently amended): An antenna duplexer, comprising:
an antenna terminal;
a reception filter connected to said antenna terminal;
a transmission filter connected to said antenna terminal; and
a first phase circuit provided between said antenna terminal and said reception filter and/or a second phase circuit provided between said antenna terminal and said

transmission filter, wherein the surface acoustic wave filter according to claim ~~1~~ or 2 is used as said reception filter.

Claim 19 (currently amended): The antenna duplexer according to claim 18 or 2, wherein all or part of said transmission filter is composed of a surface acoustic wave filter formed on a piezoelectric substrate.

Claim 20 (previously presented): The antenna duplexer according to claim 19, wherein said transmission filter is formed on the same piezoelectric substrate on which said surface acoustic wave resonator of said surface acoustic wave filter used as said reception filter is formed.

Claim 21 (original): The antenna duplexer according to claim 19, wherein said at least one surface acoustic wave resonator and said transmission filter are mounted on the same package or the same mounting substrate, and said longitudinal coupled mode type surface acoustic wave filter is mounted on a package or mounting substrate different from said package or mounting substrate.

Claim 22 (original): The antenna duplexer according to claim 19, wherein the surface acoustic wave resonator of said surface acoustic wave filter used as said reception filter and said transmission filter are formed on different piezoelectric substrates, and
at least one of said surface acoustic wave resonator and said transmission filter is mounted in a face down manner.

Claim 23 (original): The antenna duplexer according to claim 22, wherein one of said surface acoustic wave resonator and said transmission filter is mounted in a face down manner, and the other is mounted face up for wire connection.

Claim 24 (original): The antenna duplexer according to claim 19, wherein a barrier is provided at a boundary between two areas of the package or mounting substrate on which said surface acoustic wave resonator of said surface acoustic wave filter used as said reception filter and said transmission filter are mounted, said surface acoustic wave resonator being mounted in one of the areas, said transmission filter being mounted in the other area.

Claim 25 (original): Communication equipment comprising:
an antenna duplexer according to claim 19;
an antenna connected to said antenna duplexer;
transmission means connected to said antenna duplexer of transmitting a signal via said antenna; and
reception means connected to said antenna duplexer of receiving a signal via said antenna.

Claim 26 (new): A surface acoustic wave filter, comprising:
at least one piezoelectric substrate;
at least one surface acoustic wave resonator formed on said piezoelectric substrate; and

a longitudinal coupled mode type surface acoustic wave filter formed on said piezoelectric substrate,

wherein said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter are cascaded together,

wherein said surface acoustic wave resonator is also connected to at least one inductor having one end grounded,

wherein an attenuation band of said at least one surface acoustic wave resonator is apart from a pass band of said longitudinal coupled mode type surface acoustic wave filter in the direction of higher frequencies, and

wherein the other end of said inductor is connected to a side of said surface acoustic wave resonator which is opposite said longitudinal coupled mode type surface acoustic wave filter.

Claim 27 (new): A surface acoustic wave filter, comprising:

at least one piezoelectric substrate;

at least one surface acoustic wave resonator formed on said piezoelectric substrate; and

a longitudinal coupled mode type surface acoustic wave filter formed on said piezoelectric substrate,

wherein said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter are cascaded together,

wherein said surface acoustic wave resonator is also connected to at least one inductor having one end grounded, and

wherein an attenuation band of said at least one surface acoustic wave resonator is apart from a pass band of said longitudinal coupled mode type surface acoustic wave filter in the direction of higher frequencies, and

wherein the other end of said inductor is connected to a connection portion between said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter.

Claim 28 (new): A surface acoustic wave filter, comprising:

at least one piezoelectric substrate;

at least one surface acoustic wave resonator formed on said piezoelectric substrate; and

a longitudinal coupled mode type surface acoustic wave filter formed on said piezoelectric substrate,

wherein said surface acoustic wave resonator and said longitudinal coupled mode type surface acoustic wave filter are cascaded together,

wherein said surface acoustic wave resonator is also connected to at least one inductor having one end grounded, and

wherein an attenuation band of said at least one surface acoustic wave resonator is apart from a pass band of said longitudinal coupled mode type surface acoustic wave filter in the direction of higher frequencies, and

wherein said inductor moves a phase of an impedance at a frequency of said attenuation band closer to its open state.

Claim 29 (new): The surface acoustic wave filter according to claim 10, wherein at least one inductor, as one of said plurality of said inductors, is provided between said plurality of cascaded surface acoustic wave resonators.